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**WHAT IS CLAIMED IS:**

1. A metal alloy for the manufacture of cathodes for cathode-ray tubes, comprising mainly nickel, wherein said alloy includes magnesium (Mg), the weight  
5 concentration  $C_{Mg}$  of which is between 0.01% and 0.1%.

2. The metal alloy according to Claim 1, wherein said alloy also includes aluminium, the weight  
10 concentration  $C_{Al}$  of which satisfies the relationship:

$$C_{Al} \leq 0.14 \times (0.1 - C_{Mg}).$$

3. The metal alloy according to Claim 1, wherein said alloy also contains aluminium and in that, after  
15 the cathode has been activated, the percentage of the surface of the alloy below an emissive layer of the cathode covered by stable crystallites is less than or equal to 3%.

20 4. A cathode comprising a basis metal which is a metal alloy according to Claim 1, wherein an emissive part consists of a layer of alkaline-earth oxides.

25 5. A cathode-ray tube comprising at least one cathode whose basis metal is a metal alloy according to Claim 1.

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